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Attorney Docket 5577-281 (TBM033PA)
Serial No. 10/665,749

Official Amendment

Remarks:

In the present paper, Claims 1-12 are pending. Claims 1, 11 and 12 have been amended.

Support for the amendments to the claims can be found, for example, at paragraphs 11, 25 and 33 of the applicants' corresponding published patent application U.S. Pat. Pub. No. 2005/0066277.

Objection To The Specification:

The specification was objected to as having hyperlink text. The specification has been amended to remove the identified reference to a hyperlink/browser executable code. No new matter was added. As such, the applicants respectfully request that the objection to the disclosure be withdrawn.

Objection To The Drawings:

The drawings were objected to because element 260 in Fig. 3 is labeled "Tree map" and the specification recites "tree map module". Fig. 3 has been amended to correct the label per the Examiner's objection and is provided herewith as both a replacement sheet and an annotated sheet showing changes made. No new matter has been added. In view of the remarks and amendments herein, the applicant respectfully requests that the Examiner withdraw the objections to the drawings.

35 U.S.C. § 102(e)

Claims 1-12 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Pat. No. 6,583,794 to Wattenberg et al. (hereinafter the '794 patent).

According to the M.P.E.P. §2131, to establish a *prima facie* case of anticipation, the prior art reference must teach or suggest all the claim limitations. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." It is the applicants' position that the art does not support the

Attorney Docket 5577-281 (IBM033PA)
Serial No. 10/665,749

Official Amendment

rejections to the claims as amended herein, thus a *prima facie* case of anticipation has not been established. Accordingly, the applicants respectfully request that the rejections are withdrawn.

Claim 1:

It is the applicants' position that the '794 patent does not teach or suggest, as recited in claim 1, and as amended herein:

identifying data elements in the data set to be highlighted; and
generating a tree map visualization based on the data set where the tree map visualization comprises a plurality of bounding boxes, each bounding box having a color associated therewith and a location of bounding boxes corresponding to the identified data elements are highlighted by having a greater color saturation in comparison to the saturation of other bounding boxes that are not to be highlighted, even if a non-highlighted bounding box may otherwise have the same color as a corresponding highlighted bounding box.

The '794 patent is completely silent as to any specific implementations of performing highlighting operations of bounding boxes corresponding to identified data elements in a tree map visualization. Moreover, the '794 patent is completely silent as to the use of color *saturation* to highlight bounding boxes for at least the reasons set out below.

In the '794 patent, a tree map visualization is provided that divides the screen display into a plurality of sectors that are further subdivided into a plurality of regions¹. An interface system graphically conveys information about the underlying data through the use of region size and color. The primary disclosed application is to visualize financial information, such as by providing a market map display. However, other uses are also disclosed². The specific use of the tree map visualization is not relevant to this analysis.

In particular embodiments disclosed in the '794 patent, various shades of two colors are used to represent different data values, e.g., to indicate a positive or negative price change from the previous market day or from its 12-month low, etc. In addition, black may optionally be used to indicate a neutral or no change condition. In particular, the specification states:

¹ See for example, the '794 reference, Col. 8, lines 30-57.

² See for example, the '794 reference, Col. 17 line 35 through Col. 18, line 25.

Attorney Docket 5577-281 (IBM033PA)
Serial No. 10/665,749

Official Amendment

...Correspondingly, green or lighter shading can refer to a positive stock price change and red or darker shading can refer to a negative stock price change. An additional modification, in one embodiment, can be employed to enhance accuracy by, for example, utilizing multiple intensities or shades of green and red to indicate different levels of price changes and perhaps by also utilizing a third color, such as black, to indicate a neutral performance³.

The '794 patent further discloses the use of a legend box to allow the user to change the two-color scheme, e.g., from red and green to blue and yellow for those that are red/green color blind⁴.

The Examiner argues that the use of shades of a given color (which the '794 patent uses to represent different data values or different changes in data values of corresponding elements in a tree map visualization) corresponds to the claimed element of identifying data elements in the data set to be highlighted⁵.

In this regard, it appears to the applicants' that the Examiner is inappropriately attempting to rely on the phrases "...the color may *indicate* a positive or negative price change..." (emphasis added)⁶, "...*utilizing* multiple intensities or shades of green and red to indicate different levels of price changes ..." (emphasis added)⁷, and "...green or lighter shading can *refer to* a positive stock price change and red or darker shading can *refer to* a negative stock price change." (emphasis added)⁸ out of context. These passages do not teach identifying data elements that are to be "highlighting" as claimed. Moreover, the passages relied upon by the Examiner make it clear that the '794 patent uses the various shades or intensities of a color to represent the *different data values or changes in the data values* in the corresponding tree map visualization, and docs not relate to identifying data elements for highlighting.

³ See for example, the '794 patent, Col. 3, lines 33-60; Col. 9, line 63 through Col. 10 line 20; Col. 17, lines 5-12.

⁴ See for example, the '794 patent, Col. 16 lines 16-29.

⁵ See Office Action mailed August 01, 2006, page 3 paragraph 6.

⁶ See for example, the '794 patent, Col. 3, starting at line 43.

⁷ See for example, the '794 patent, Col. 3, starting at line 49.

⁸ See for example, the '794 patent, Col. 3, starting at line 47.

Attorney Docket 5577-281 (TBM033PA)
Serial No. 10/665,749

Official Amendment

It is the applicants' position that the selection of a particular shade of a given color to represent a data value corresponding to an element in a tree map visualization neither teaches nor suggests generating a tree map visualization based on the data set where the tree map visualization comprises a plurality of bounding boxes, each bounding box having a color associated therewith and a location of bounding boxes corresponding to the identified data elements are highlighted by having a greater color saturation in comparison to the saturation of other bounding boxes that are not to be highlighted, even if a non-highlighted bounding box may otherwise have the same color as a corresponding highlighted bounding box.

As an example, in the '794 patent, if you change the shade of a bounding box, you are also suggesting a change in the value of the underlying data, rather than highlighting the bounding box, e.g., to distinguish the bounding box as a bounding box of interest. Moreover, two bounding boxes having the same underlying data value will have the same shade of color, which may make it difficult to distinguish between the two, particularly where only one of the two bounding boxes is of interest to the user.

The '794 patent does disclose a "Find" feature that is provided in the legend display, that allows a user to type a name and have the corresponding data "highlighted"⁹. While the general concept of highlighting is alluded to, there is no teaching or suggestion that the highlighting is performed by making a location of bounding boxes corresponding to identified data elements that are to be highlighted have a greater color saturation in comparison to the saturation of other bounding boxes that are not to be highlighted, even if a non-highlighted bounding box may otherwise have the same color as a corresponding highlighted bounding box. Nor is the use of saturation to perform highlighting inherent in the disclosure as there are a significant number of ways to highlight without adjusting the saturation of a color.

With specific reference to claims 2 and 3, there is no teaching or suggestion in the '794 patent to highlight by increasing the color saturation of identified elements to be highlighted. Again, the applicants believe that the cited use of color shade to represent specific values or

Attorney Docket 5577-281 (IBM033PA)
Serial No. 10/665,749

Official Amendment

changes to values in the underlying data do not teach or suggest the use of color saturation for highlighting as claimed. As noted above, the '794 patent ties the shade of a color to its underlying value. Thus, two bounding blocks with the same underlying value will always have the same shade of color. There is no teaching or suggestion in the '794 patent that would allow two boxes with the same underlying value to have a color in two different saturations, thus highlighting one from the other. Thus, the '794 patent does not teach or suggest increasing color saturation to identify data elements to be highlighted. Similarly, there is no teaching or suggestion in the '794 patent of decreasing the saturation of bounding boxes that are not to be highlighted as recited in claim 3.

With reference to claim 4, there is no teaching or suggestion in the '794 patent of identifying data elements to be highlighted based upon data that does not utilized in generating the tree map. Similarly, with reference to claim 5, there is no teaching or suggestion of identifying data elements to be highlighted based upon metadata. Still further, there is no teaching or suggestion of identifying data elements in the data set based upon dynamically determined criteria as recited in claim 6 or identifying data elements in the data set to be highlighted based on a statistically defined criteria as recited in claim 7. Rather, the underlying data element values are used to compute the shades of color used in the tree map visualization¹⁰.

In view of the amendments and clarifying comments herein, the applicants respectfully request that the Examiner withdraw the rejection to claim 1 and the claims that depend therefrom under 35 U.S.C. §102(e).

Claims 11 and 12 have been amended herein to recite elements that are similar to that discussed in greater detail herein with reference to claim 1. Thus, the above arguments are applicable by analogy. In view of the amendments and clarifying comments herein, the applicants respectfully request that the Examiner withdraw the rejection to claims 11 and 12 under 35 U.S.C. §102(e).

⁹ See for example, the '794 patent, Col. 3, lines 16-29.

¹⁰ See for example, the '794 patent, Col. 15, lines 14-23.

Attorney Docket 5577-281 (IBM033PA)
Serial No. 10/665,749

Official Amendment

Claim 8:

Contrary to the Examiner's conclusion that the '794 patent discloses all of the elements of claim 8, it is the applicants' position that the '794 patent does not teach or suggest, as recited in claim 8:

a plurality of bounding boxes, each bounding box having a color associated therewith, the color being based on a data value associated with a corresponding bounding box; and
at least one bounding box having a color saturation greater than a color saturation of another of the plurality of bounding boxes that has the same color as the at least one bounding box so as to highlight the at least one bounding box.

In support of the above rejection, the Examiner relies on the disclosed use of shades in the '794 patent, e.g., to show changes in underlying data values¹¹. However, in a manner analogous to that described with reference to claim 1, the use of color shade to represent changes in data values does not teach or suggest the use of *saturation* for highlighting as claimed.

For example, as claimed, at least one bounding box having a color saturation greater than a color saturation of another of the plurality of bounding boxes that has the same color as the at least one bounding box so as to highlight the at least one bounding box.

However, in the '794 patent, if two bounding boxes have the same color, they have the same underlying data value. As an example, in the '794 patent, if you change the shade of a bounding box, you are also suggesting a change in the value of the underlying data, rather than highlighting the bounding box, e.g., to distinguish the bounding box as a bounding box of interest. Thus, two bounding boxes having the same color also share the same underlying data values. There is no disclosure of two bounding boxes in the '794 patent, having the same color and different saturation, e.g., to implement a highlight.

¹¹ See Office Action mailed August 01, 2006, page 4.

Attorney Docket 5577-281 (IBM033PA)
Serial No. 10/665,749

Official Amendment

In view of the amendments and clarifying comments herein, the applicants respectfully request that the Examiner withdraw the rejection to claim 8 and the claims that depend therefrom under 35 U.S.C. §102(e).

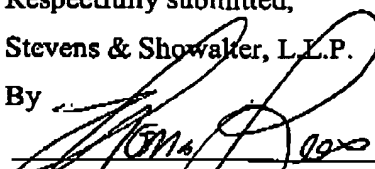
Conclusion

For all of the above reasons, the applicants respectfully submit that the above claims recite allowable subject matter. The Examiner is encouraged to contact the undersigned to resolve efficiently any formal matters or to discuss any aspects of the application or of this response. Otherwise, early notification of allowable subject matter is respectfully solicited.

Respectfully submitted,

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ANNOTATED SHEET SHOWING CHANGES MADE

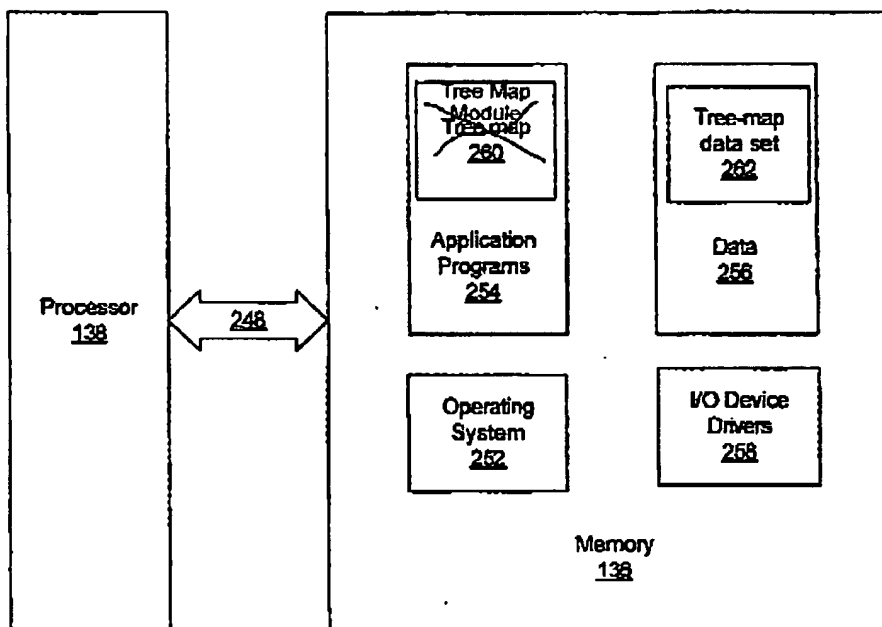


Figure 3